## ABSTRACT OF THE INVENTION

This invention discloses a method for oxidizing and/or decomposing organic and/or inorganic oxidizable substances in waste water by wet oxidation with a use of a catalyst , wherein the oxidizable substances are oxidized and/or decomposed with an oxygen containing gas in the presence of the catalyst under pressure such that said waste water retains the liquid phase thereof at temperature of 50 to less than 170 ℃; the catalyst contains activated carbon; and controlling an oxygen concentration in an exhaust gas in the range from 0 to 5 vol%. The present inventive method is capable of treating waste water efficiently for a long period in a stable manner at the reduced temperatures and as compared with the substantially higher temperatures and pressures used in many of the prior art method.